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Beyond legal origin and checks and balances: Political credibility, citizen information and financial sector development

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Abstract:: The existing literature emphasizes and contrasts the role of political checks and balances and legal origin in determining the pace of financial sector development. This paper expands substantially on one aspect of this debate: the fact that government actions that promote financial sector development, whether prudent financial regulation or secure property and contract rights, are public goods and sensitive to political incentives to provide public goods. Tests of hypotheses emanating from this argument yield four new conclusions. First, two key determinants of those incentives, the credibility of pre-electoral political promises and citizen information about politician decisions, systematically promote financial sector development. Second, these political factors, along with political checks and balances, operate in part through their influence on the security of property rights, an argument asserted but not previously tested. Third, contrary to findings elsewhere in the literature, the political determinants of financial sector development are significant even in the presence of controls for legal origin. Finally, and again in contrast to the literature, the evidence here suggests that legal origin primarily proxies for political phenomena. Legal origin is a largely insignificant determinant of financial sector development when those phenomena are fully taken into account.

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Two strands of analysis dominate the literature that analyzes the institutional sources of financial sector development. Both agree that governments prone to expropriation stifle growth on both sides of bank balance sheets: depositors are unwilling to risk their funds in expropriable bank accounts; bankers are unwilling to lend to those who might abscond with the funds under the protective umbrella of a sympathetic government; investors are unwilling to capitalize banks whose profitability is placed at risk by the prospect of government expropriation. However, the political economy literature underlines the role of political checks and balances to ensure the credibility of government commitments not to expropriate actors in financial markets. The finance literature argues for the primacy of legal systems as guarantors of private rights.

Several issues remain unresolved in this literature, including the role of political factors other than political checks and balances and the extent to which the effects of political institutions and legal origins are robust to systematic tests. This paper makes four contributions that address these issues. First, it presents the first cross-country evidence, using objective indicators of political institutions, that political checks and balances are important for financial sector development. However, government policy is also influenced by the conditions of political competition and not only by the institutions of government policy making. The security of property rights and the efficient regulation of banks are both public goods and the conditions of political competition determine political incentives to provide public goods. A second contribution of the paper is to demonstrate that these conditions, particularly the credibility of pre-electoral political promises and citizen information about political decisions, are also significant determinants of financial sector development. Third, empirical work below demonstrates for the first time that all of these

political influences operate in part through their impact on the security of property and contract rights in countries.

Finally, estimates below demonstrate that the political determinants of financial sector development are robust to controls for legal origin. More revealing, after controlling for the potential endogeneity of political influence, legal origins have no significant impact on financial sector development. This suggests that legal origins capture unobserved historical influences that condition the political evolution of countries; when that evolution is modeled directly, the impact of the legal origins proxies falls accordingly.

Political and legal influences on financial sector development

Most work on financial sector development focuses on the role of political institutions – particularly political checks and balances; on the incentives of political decision makers and particularly the economic interest of their constituents; and on the origins of a country's legal system. The work here tests these links and introduces other political characteristics of countries into the debate.

Political checks and balances

Political checks and balances increase the chances that a potential target of expropriation is represented in government and can block the expropriation decision. North and Weingast (1989) underline the importance of political checks and balances as a source of credible commitment in the context of the financial sector. The role of checks and balances is also thoroughly documented in other areas in which government credibility is at issue (e.g., by Keefer and Stasavage (2003) in the case of monetary policy).

However, the necessity of checks and balances as a precondition for financial sector development and economic growth has been called into question by Haber, Razo and Maurer (2003) and others. They have demonstrated that the autocratic Porfirio Díaz regime

in Mexico was able to stimulate financial sector growth and economic growth more generally by making self-enforcing or externally-enforced arrangements that allocated privileged bankers and industrialists high rents. Despite the empirical and theoretical caveats to the argument about political checks and balances, however, the empirical work below shows that political checks and balances are a robust determinant of financial sector development. While acknowledging irrefutable evidence that autocrats *can* craft credible agreements with bankers and industrialists, the evidence suggests that in general they are less able to do this than governments nested in a system endowed with political checks and balances.

Economic interests, politics and financial sector development

The evidence presented below also emphasizes the role that other political conditions play. This is a theme that has emerged as well in the financial sector literature. Revisiting the evidence presented in North and Weingast (1989), Stasavage (2003) emphasizes that the credibility of governments depends on more than the presence of multiple veto players, but also on the interests of veto players. He argues that only when veto players in the British Parliament began to care about the cost of capital did interest rates paid by England on sovereign loans begin to drop. Similarly, research into the political economy of financial sector regulation has tended to focus most on the political interests of politicians. The experiment, seen throughout the literature, particularly in American politics, is to ask whether legislators' voting records reflect the economic interests that prevail in their electoral districts. Kroszner and Strahan (1996), Kroszner and Stratmann (1998), Broz (2002) and many others have demonstrated power of these arguments, showing that economic interests within districts are significant determinants of legislator voting behavior with respect to the financial legislation.

The interest group approach to political economy is hard to extend to the question of why property rights, credibility or financial sector development are greater or faster in some countries than in others. The US is a fairly unique laboratory for identifying the role of economic interests, because of low district magnitudes (the number of legislators per electoral district is either one or two), weak party control over the nomination process and because of ample data. At the same time, while it is possible that policy differences across countries are purely a reflection of differences in the types and alignments of economic interests in a country, there is little qualitative evidence that this is the case. The empirical tests below therefore look to underlying characteristics in the nature of political competition that affect government incentives to cater to special interests at the expense of citizens at large. Two characteristics are, in particular, prominent in the literature: citizen information about the actions of political decision makers and the credibility of pre-electoral political promises.

Legal origins and financial sector development

A prominent approach, particularly in the finance literature, is to trace the financial development of countries back to their legal origins. The law and finance literature (the seminal contributors to which are La Porta, Lopez-de-Silanes, Shleifer and Vishny, e.g., 1998) has presented substantial evidence that legal origin is significantly associated with a variety of aspects of government performance and that, specifically, countries of English, German or Scandinavian legal origin perform significantly better on numerous dimensions than countries with legal systems rooted in French or socialist legal traditions. To explain these outcomes this literature argues that, in contrast to French or socialist legal systems, the English common law tradition offered judicial protection of private property rights against predation by the state. The German legal system, though also in the civil law tradition

adopted by the French, was consciously intended to be more amenable to change than the French. The Scandinavian was close to the German.

Particularly among legal scholars, these arguments have aroused considerable controversy. On the one hand, scholars dispute whether the posited differences in French and German systems (e.g., with respect to their dynamism) or between civil and common law systems (e.g., with respect to their acceptance of judge-made law) are correct (XXCITE, Gourevitch, Roe). On the other, while the evidence has been overwhelming that legal origin matters, it is less clear that the evidence matches the specific hypotheses regarding the ranking of legal traditions outlined in the literature.

For example, Beck, et al. (2001) compare the performance of countries with British, French and German legal origin to that of countries with socialist or Scandinavian legal origins. The law and finance literature argues for the superiority of British common law, putting it at least on a par with the German legal tradition. Beck, et al (2001) find, in contrast, that British legal origins are significantly less conducive than the German to financial sector development (credit to the private sector) and often not significantly different than the French. The two advantages of German legal origin – bureaucratic efficiency and an expressed willingness to adapt the law to new circumstances – seem not to explain why the performance of systems of German origin perform markedly better than common law systems. In common law (UK-style) systems, protection of private property against the predations of the state is more clearly enshrined. In addition, common law systems are, by the very nature of the discretion given to judges in common law systems, regarded as highly adaptable.

Regardless of these caveats, the empirical evidence in favor of the importance of legal origin for financial sector development has been compelling (see La Porta, et al. 1998

and many other or their contributions). Beck, Demirgüç-Kunt and Levine (2001) undertake a wide-ranging empirical investigation of the relative effects of political arrangements, legal origin and different historical factors on financial development. They conclude that legal origin offers a substantially stronger explanation of financial development than political conditions. They also present indirect evidence that legal origin is important not because of the historical factors that might condition special interest influence over the political process, but rather because some legal traditions are more adaptable – dynamic – than others.

The analysis here differs with respect to the political hypotheses investigated and the political variables used. In addition, a different approach is taken to examine whether legal origin captures distant historical forces that also condition current political competition – that is, that legal origin simply proxies for political forces. These differences yield divergent conclusions from those in Beck, et al. (2001). The results below indicate that the dynamics of political competition and political checks and balances matter significantly for financial sector development, whether or not legal origin is taken into account. On the other hand, measures of legal origin are insignificant in specifications that control for the possibility that both political variables and financial sector development are influenced by unobserved factors.

The conditions of political competition and financial sector development

The political economy and legal origin literatures typically portray the security of property rights as the product of institutions that allow governments to credibly commit not to expropriate. However, secure property rights can also be regarded as a public good and expropriation as a public bad. In the typical case of expropriation, the government takes the assets of one economic actor and distributes them to others. If expropriation were nothing more than the struggle of one narrow interest of society against another, political checks and

balances would resolve the struggle as long as each special interest controlled at least one of the veto gates in the political structure. This depiction of expropriation ignores substantial social costs that are at the center of concern about the security of property rights, however. The risk of expropriation threatens all assets in a country. Similarly, an act of expropriation imposes costs on all citizens and not only the target of expropriation. The asset values and employment opportunities of all citizens depend on the rate of return that investors expect as a condition of placing fixed assets in a country. That rate of return must rise when expropriation risks increase. A policy of non-expropriation can therefore be seen as a public good that benefits all citizens in the same way that national defense does. Similarly, the regulatory decisions of governments have public good attributes. Regulatory failure in the financial sector leads to the economic disruption of a banking crisis or the costs of a slow-growing financial sector. These are felt broadly throughout an economy.

Taken together, then, these arguments suggest that financial sector development should depend not only on the credibility of governments and on legal traditions, but also on the incentives of government decision makers to provide public goods. The literature has developed several explanations of the conditions under which governments have such incentives. One of these is the sheer ability of citizens to take part in the political process influences government incentives to provide public goods. Absent competitive elections and an enfranchised citizenry, the costs to "average" citizens of removing non-performing governments rise. Unelected governments should therefore confront fewer political costs when they privilege themselves or narrow interests with private goods at the expense of citizens generally.

Keefer (2004) finds that competitive elections are a strong and significant determinant of the magnitude of government fiscal transfers in the event of crisis. That is,

elected governments face greater political costs from allowing insolvent banks to socialize the risks of imprudent lending. Ultimately, elected governments face greater political costs when they attempt to make fiscal transfers to special interests (delinquent borrowers, careless depositors, imprudent bankers) at the expense of citizens generally.

Of course, elections often fail to generate accountability. In 1997 expropriation risk was the same or higher in 35 percent of countries exhibiting competitive elections than in 60 percent of the countries that did not.[1] Although the literature identifies several explanations for this, two are the focus here. First, political competitors strive to gain electoral advantage by making claims to voters about what they will do if they take office. If those promises are not credible, however, they do not affect the election and politicians have no reason to abide by them once they take office. One precondition of credibility is that government actors confront a cost from reneging. Such a cost might come in the form of damaged reputation. A second source of low credibility is voters' lack of information about government policy actions and their connection to citizen welfare. Without this information, it is not possible for citizens to verify whether politicians have taken the actions that they had promised prior to their election. Absent verifiability, however, political promises are not credible.

The analysis of information in the literature generally takes for granted the credibility of agreements and asks how imperfect voter information distorts outcomes. Besley and Burgess (2004) do this, asking how imperfect voter information about politician type or actions allows worse outcomes than would otherwise prevail. Grossman and Helpman (1996) argue that if voters are uninformed about candidate characteristics, candidates can spend money to persuade the voters of their qualities. As in the credibility story, citizens in

[1] The expropriation risk measure is from Political Risk Services' *International Country Risk Guide* and the measures of competitive elections from the *Database on Political Institutions*. These are discussed below. There was no difference at all between countries with and without competitive elections on another commonly used measure of property rights, the rule of law measure from the same source.

general suffer as politicians obtain resources to finance information campaigns by providing favors to special interests. They assume, however, that candidate promises to citizens and to special interests are credible.

If politicians are entirely non-credible and can do nothing about it, two outcomes are possible. One is that politicians provide nothing to anyone. A second, introduced by Ferejohn (1986), is that voters are able to coordinate on a performance threshold below which they expel the poor performing incumbent and above which they re-elect him, independently of challenger characteristics, since challengers are not credible. Keefer and Vlaicu (2004) argue, however, that politicians in fact try to overcome their credibility problems. As they do this, they rely on clients and personalized transfers, provide little in the way of public goods and are able to engage in substantial corruption. Insecure property rights and lack of attention to prudential regulation of the financial sector, is consistent with, though not directly predicted by these analyses. The intuition is straightforward: politicians who cannot make credible promises to the whole population try to make promises at least to a few. These few do not internalize the costs of expropriation or risky financial sector regulation.

Each of these – voter information and politician credibility prior to elections – influence whether agreements between voters and politicians are credible. Credibility in this case does not refer to the credibility of government commitments to continue particular policies in the future – for example, promises to bankers not to expropriate rents from financial transactions. Instead, it refers to promises that politicians make to voters prior to elections.

This is an unusual way to frame the political economy of financial sector issues. On the one hand, government credibility is not usually conceived of as a public good. On the

other, much of the political economy literature concerns conflict between special interests (large versus small banks, banks versus insurance companies, healthy banks versus insolvent ones). The introduction of a conflict between narrow and broad interests and of the incentives of governments to provide public or private goods nevertheless contributes in two ways to our understanding of financial sector development. It provides a single explanation for two phenomena usually treated separately (the security of property rights and the efficiency of regulation); an it helps to illuminate why countries with similar formal institutions exhibit such different levels of financial development.

It is finally important to emphasize that these arguments are complementary to the institutional arguments surrounding political checks and balances. In particular, political arrangements that give rise to political checks and balances may or may not encourage public good provision (see, for example, Persson and Tabellini 2000). The arguments here are also complementary to the extensive research documenting the role of special or economic interests in the formulation of financial sector regulation. Although research in American politics has clearly demonstrated that regulation is influenced by the competing demands of special interests, it does not tell us when regulation is more responsive to those competing demands than to the interests of citizens more broadly.

Empirical approach

The empirical investigation below examines financial sector development over two periods: medium-term growth in the financial sector over the period 1975-2000 and long run growth, using the size of the financial sector in 2000. This mirrors the growth literature, most of which uses medium term growth (e.g., 1975-2000) and another of which examines the very long run (e.g., Hall and Jones (1999) or Acemoglu, Johnson and Robinson (2001,

2002). These are appropriate time periods not only for growth, but for any fundamental aspect of economic development, such as financial sector growth.

Corresponding to the two periods of financial sector development are two base empirical specifications,

(1) $Growth\ of\ the\ financial\ sector_i\ (1975\text{-}2000) = \beta_1 + \beta_2 ln(initial\ financial\ sector)_i + \beta_3(\textbf{initial political/institutional variable})_i + \boldsymbol{X_i}'\boldsymbol{\beta_4} + \varepsilon_i$

and

(2) $Size\ of\ the\ financial\ sector_i\ (2000) = \beta_1 + \beta_2\ (\textbf{initial political/institutional variable})_i + \boldsymbol{X_i}'\boldsymbol{\beta_3} + \varepsilon_i$.

Equation (1) allows medium term growth of the financial sector to vary with the initial size of the financial sector, analogous to medium-term growth regressions in which growth varies with the level of initial income per capita. In the second equation, the initial size of the financial sector is omitted in order to preserve the long run character of the investigation.[2] These specifications raise numerous issues, the most important of which are: what should be in $\boldsymbol{X}$ and how should one should address the potential endogeneity of the political and institutional variables?

With respect to the first question, the base specification is parsimonious, following Beck, et al. (2001) in the financial literature and many others in the growth literature. The argument behind parsimony is simple: the effects of political institutions on financial sector development are likely to be both direct and indirect. As a first approximation we would like to know the total effects of both. Some specifications control in addition for income per capita in 1975. This is a challenging test for the political hypotheses under consideration

[2] Including 1975 financial sector size in equation 2 would render it nothing more than an investigation of growth over the period 1975 – 2000.

here, since there is a well-known correlation between income and variables related to democracy. In addition, robustness checks for a number of other variables, including legal origin, are examined.

Endogeneity is a second difficult issue. As is always the case, one might be concerned either that economic variables drive political outcomes or that omitted factors determine both. The first possibility is taken into account through the use of initial values of political institutions. The second is more difficult. Among the entire range of instruments typically used to control for the endogeneity of institutions in the literature, none are valid for the entire range of specifications examined here. However, colonial origins (whether a country is of British, French or Spanish colonial origin) turn out to be valid for most specifications.

Most of the literature on financial sector development gives prominence to the argument that the security of property and contract rights is key. This is a core argument of North and Weingast (1989), which underlines the importance of political checks and balances for ensuring security of contract. It is also a foundation of the literature on the importance of legal origins. Beck, et al. (2001) summarize a key argument in the law and finance literature by arguing that "English common law evolved to protect private property owners against the crown" (p.2). The argument here is that a variety of political attributes of countries contribute to the security of property rights, because they influence the willingness of governments to provide public goods generally. None of these different arguments has been subjected to a fairly mechanical test: is that component of secure property rights explained by political institutions, legal origins or the characteristics of political competition a significant determinant of financial sector development?

To assess this question, the following system and its analog for long-run financial sector development are estimated:

(3) *Security of property rights* (*1975*) = $\beta_1 + \beta_2 ln(\text{initial financial sector})_i +$

$\beta_3(\textbf{political/institutional variable})_i + \boldsymbol{X_i'\beta_4} + \varepsilon_i$

(4) *Growth of the financial sector* $_i$ (*1975-2000*) = $a_1 + a_2 ln(\text{initial financial sector})_i +$

$a_3(\textbf{predicted security of property rights}) + \boldsymbol{X_i'a_4} + \mu_i$

These regressions simply ask whether the component of secure property rights that can be explained by politics or political institutions is a significant determinant of financial sector development.

Data

The regressions below require data on financial sector development and the political characteristics of countries. For the first, estimates below rely on *private credit*, total credit extended to the private sector by banks and other financial institutions. This variable is the preferred measure of financial sector development in Beck, et al. (2001) and is taken from the Financial Structures Database of the World Bank (see Beck, Demirgüç-Kunt and Levine 2000). Beck, et al. (2001) describe this as the preferred measure of financial sector development.

Four different measures of political institutions or competition are evaluated here. All are taken from the *Database of Political Institutions* (Beck, et al. 2001), running from 1975 – 2000. In contrast to the measures used in much of the literature, those here are all objective and easily replicable by others. The *checks* indicator is an objective counterpart to a subjective measure often used to capture checks and balances, "*Executive Constraints*" from the Polity IV database. It measures how many political actors can block proposed

legislation, therefore tracking whether formal institutions exist that potentially impose constraints on arbitrary behavior by the executive branch.[3]

The *checks* variable captures the two ingredients identified by many as essential for secure property rights: elections and checks on the executive branch. However, unlike the *Executive Constraints* Polity IV measure, *checks* captures only the formal constraints on the executive that theory predicts should protect property rights, not whether those formal constraints are in practice binding. It therefore constitutes a better test of theories of the role of institutions.

The *DPI* also contains two variables assessing the competitiveness of elections, the Legislative and Executive Indices of Electoral Competitiveness (*LIEC*, *EIEC*). The executive index, *EIEC*, is used here. This reaches its highest score (7) when multiple parties can and do compete for executive election and no party gets more than 75 percent of the vote. A six means that one party receives more than 75 percent of the vote; a five that only one party ran for office though others could have and so on until one, indicating no elections were held. Since most scholars would agree that only the most competitive category of *EIEC* is a reasonable approximation to elections, a dummy variable is used in the regressions here, equaling one when *EIEC* is seven and zero otherwise.

The remaining two democracy variables capture distortions in the market for political office. The first distortion is the lack of credibility of pre-electoral political promises. The evidence in Keefer (2003) indicates that the performance of democracies

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[3] Beginning from a value of one (meaning that there is only one veto player and no checks and balances), this variable increments by one if countries have potentially competitive elections of the executive; by one in presidential systems if the legislature and presidency are controlled by different parties; in parliamentary systems, the value is incremented by the number of parties in the government coalition whose departure would cause the government to lose a majority; and in all systems by one for each party supporting the government in the legislature whose with an ideological stance strongly differing from that of the executive's party (see the *DPI* codebook for more details).

with fewer continuous years of competitive elections is starkly different from that of older democracies: they are more corrupt, spend more on public investment and government jobs and exhibit lower secondary school enrollment, rule of law and bureaucratic quality – relations that are robust to a variety of specifications and endogeneity controls. These policy differences can be best explained by the greater difficulties that competitors in younger democracies confront in making impersonal credible commitments to voters prior to elections. From the *DPI*, one can calculate one how many years a country has continuously held competitive elections (where both the Executive and Legislative Indices of Competitive Elections equal seven). The value of this variable (*continuous years of competitive elections*) in 1975 is therefore used in the regressions below.[4]

A large literature has also argued that voter information is critical to the effects of elections on incumbent behavior. Following the empirical research in this literature (see, e.g., Adserà, et al. 2003), *newspaper circulation* from the *World Development Indicators* is therefore used as a proxy for the extent of voter information and its effect on growth. The 1975 (initial) values of all political variables are used here, with the exception of newspaper circulation. To counter spotty coverage in any given year, the average of newspaper circulation over the period 1975 – 2000 is employed below.

Instruments

The literature uses a variety of instruments to identify the effects of institutions: distance from the equator (Hall and Jones 1999 use this to instrument for their index of social infrastructure), colonial heritage, years since the creation or independence of a country (Persson, Tabellini and Trebbi 2003), settler mortality and urbanization in 1700 (Acemoglu,

[4] The 1975 value of this variable in the DPI is actually taken from Clague, et al. (1996); values subsequent to 1975 are updated according to the methodology explained in the text. The use of values of *persistence* averaged over the 1975 – 2000 period does not change the results reported below.

Johnson and Robinson 2001, 2002). In all cases, each of these instruments has been introduced into the literature as a measure of underlying political institutions rather than as a direct estimate of property rights. As a consequence, to the extent that they are valid instruments for property rights in growth equations, one would expect them also, logically, to be reasonable instruments for institutions of various kinds in the growth equations. In the current context, however, only colonial origin variables are (generally) valid.

Other controls

The specification here is parsimonious, allowing the estimates of institutional variables to reflect both their direct and indirect effects. However, two additional controls are always included, land area and total population. These capture exogenous variation across countries in the size of the market, which in turn might have a significant impact on the development of the financial sector. Extensions of the base regressions encompass other variables, including the legal origin of countries.

Results

Tables 1 and 2 present the base results that support the main contentions of the paper. Tables 1a and 1b, using, respectively, ordinary least squares and two-stage least squares estimates of equations (1) and (2), show that objective measures of political checks and balances and, to a lesser extent, competitive elections, have a significant influence on financial sector development. These results stand in contrast to those reported by Beck, et al. (2001), but are consistent with the evidence in, for example, North and Weingast (1989).[5] After controlling for endogeneity the results strengthen: both magnitudes and statistical

[5] Beck, et al. (2001) show that initial values of subjective measures of democracy from the Polity III database are not significant determinants of financial sector development. They also use *current*, not initial, values of the checks and balances measure used here and find it has a significant impact on financial sector development.

significance rise, while the *F* and *J* statistics reported in Table 1b support the claim, in five of six regressions, that the colonial heritage dummy variables are valid instruments.

Table 1a: Competitive elections, checks and balances and lending to the private sector

	Competitive Elections (1975)			Checks and Balances (1975)		
Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)
Political variable	.002 (*.35*)	.015 (*.46*)	.07 (*.00*)	.006 (*.02*)	.05 (*.09*)	.12 (*0.0*)
Land (thousands of square miles)	0.0 (*.966*)	-.000095 (*.63*)	.000015 (*.53*)	-.000002 (*.89*)	-.000011 (*.60*)	.000010 (*.69*)
Average population (millions)	-.000084 (*.48*)	.000077 (*.05*)	.0003 (*.44*)	-.00002 (*.17*)	.000734 (*.08*)	.00034 (*.46*)
Log real income/capita (1975)		.21 (*0.0*)			.19 (*0.0*)	
Private sector lending (1975)	-.03 (*.10*)			-.04 (*.03*)		.12 (*0.0*)
R^2	.03	.36	19	.07	.38	.24
N	78	93	116	78	93	116

N.B. *p*-values are reported in parentheses, based on robust standard errors. Constants not reported.

The magnitude of the effects is large. The two-stage least squares estimate in Table 1a suggests that financial sector growth over the period 1975 – 2000 was two percentage points per year faster in countries with competitive elections in 1975 than in countries without; the average for all countries was 2.2 percentage points per year. Results for political checks and balances are equally large. These estimates are particularly striking because most of the regressions in the two tables control for either the level of financial sector

development or initial per capita income in 1975. Both of these are highly correlated with initial values of the political variables.

Table 1b: Two stage least squares estimates of Table 1a

	Competitive Elections (1975)			Checks and Balances (1975)		
Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00 (*IV*)	Level 2000 (*IV*)	Level 2000 (*IV*)	Growth 75 – 00 (*IV*)	Level 2000 (*IV*)	Level 2000 (*IV*)
Political variable	.02 (*0.0*)	.09 (*.07*)	.17 (*0.0*)	.033 (*.001*)	.27 (*.004*)	.30 (*0.0*)
Land (thousands of square miles)	-.00002 (*.28*)	-.00008 (*.70*)	-.00007 (*.80*)	-.00002 (*.41*)	-.0002 (*.60*)	-.0002 (*.53*)
Average population (millions)	-.0005 (*.03*)	.006 (*.25*)	.003 (*.60*)	-.00007 (*.01*)	.004 (*.57*)	.004 (*.61*)
Log real income/capita (1975)		.12 (*.09*)			.02 (*.76*)	
Private sector lending (1975)	-.10 (*.01*)			-.03 (*.001*)		
F-statistic on instruments (first stage)	3.84	3.62	7.2	4.39	3.53	7.3
Hansen *J*-statistic (Chi-squared *p*-value)	.45	.06	.17	.55	.68	.83
N	78	91	103	78	91	103

N.B. *p*-values are reported in parentheses, based on robust standard errors. Instruments for the fourth and eighth regressions are three dummy variables indicating whether a country has British, French or Spanish colonial origins. Constants not reported.

Whether elections or checks and balances matter most in cementing the credibility of government decisions is unclear in the literature. North and Weingast (1989) argue for the importance of political checks and balances in the absence of competitive elections and a

universal franchise. Acemoglu, Robinson and Johnson (2001, 2002) argue for both, but Acemoglu and Robinson (XXUPDATE) emphasize the role of elections, arguing that it is only the threat of replacement by citizens that prevents governments from expropriating citizens. Tables 1a and 1b reflect this ambiguity since the checks and balances variable in Table 1 takes into account the competitiveness of elections: countries lacking competitive elections are assigned a one for this variable.

Table 1c: The effect of checks and balances, controlling for elections

Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)
Checks and Balances	.007 (*.04*)	.062 (*.07*)	.09 (*.01*)
Competitive elections	-.001 (*.59*)	-.013 (*.59*)	.02 (*.30*)
R^2	.08	.38	.24
N	78	93	116

N.B. Table 1c uses the same specification as in the first three columns of Table 1a, with the addition of competitive elections. Other controls and constants not reported. *p*-values in parentheses, based on robust standard errors.

We can easily ask, however, whether the effects of the checks variable is driven by elections or not by controlling for the competitiveness of elections in 1975 in the specifications of Table 1a. These results are reported in Table 1c. They strongly suggest that while elections are a pre-condition for political checks and balances, elections alone are not sufficient to guarantee the security of property rights. On the other hand, Table 1c indicates that political checks and balances and elections, jointly, encourage faster financial sector development. This implies, in turn, that although autocratic regimes, such as the Diaz regime studied by Haber, Razo and Maurer (2003), may be able to reach credible bargains

with bankers and industrialists sufficient to spur economic growth, such efforts are the exception rather than the rule.

The second contention of the paper is that the effects of politics on financial sector development extend beyond the formal institutions of competitive elections and political checks and balances. The evidence in Tables 2a and 2b supports this contention. The ordinary least squares estimates in Table 2a indicate large effects of both the continuous years of competitive elections and average newspaper circulation. A one standard deviation increase in the initial number of continuous years of competitive elections is associated with an increase in the rate of growth of the financial sector of 0.6 percentage points per year and with an increase in the size of the financial sector in 2000 of as much as 25 percent of GDP. Results for newspaper circulation are still larger. These findings are robust to controls either for initial financial sector development or initial income, both of which are highly correlated with the two political variables. They imply that government actions supportive of financial sector development, including the security of property rights, are public goods whose provision is sensitive to government incentives to provide public goods.

If these variables accurately proxy the credibility of pre-electoral political promises and voter information, respectively, the results in Tables 2a and 2b underline the importance of a different kind of credibility for financial sector development. When average citizens do not believe the promises of political competitors to provide such public goods as secure property rights or are unable to monitor the fulfillment of such promises, financial sector development slows.

Table 2b investigates the sensitivity of these results to the potential endogeneity of the political variables to financial sector development. Although the political variables remain highly significant, this exercise is less successful than in Table 1b. The *F*-statistics

confirm that the colonial heritage dummies reported here, are significant predictors of the political variables. However, the Hansen *J*-test rejects the assumption that these (or any other of the usual instruments) can be excluded from the second stage regressions. However, although one cannot reject the hypothesis that the results in Table 2a are driven by the endogeneity of the political variables, once legal origin variables are taken into account, as in tables 5 and 6 below, the same instrumental strategy succeeds in four of six of the regressions and the political variables remain strongly significant.

Table 2a: Continuous years of elections, newspaper circulation and lending to the private sector

	Continuous years of competitive elections (1975)			Average Newspaper Circulation (1975-2000)		
Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)
Political variable	.0006 (*.01*)	.005 (*.09*)	.013 (*0.0*)	.00008 (*.01*)	.001 (*0.0*)	.002 (*0.0*)
Land (thousands of square miles)	-.000002 (*.28*)	-.00002 (*.32*)	-.00008 (*.66*)	-.0000002 (*.88*)	.00002 (*.90*)	.0002 (*.20*)
Average population (millions)	.000001 (*.92*)	.00026 (*.37*)	-.00015 (*.71*)	-.00004 (*.76*)	.006 (.06)	.004 (*.12*)
Log real income/capita (1975)		.21 (*0.0*)			.12 (*.003*)	
Private sector lending (1975)	-.02 (*.15*)			-.05 (*.02*)		
R^2	.08	.36	.29	.11	.45	.43
N	66	73	88	78	94	115

N.B. *p*-values are reported in parentheses, based on robust standard errors. Constants not reported.

The ordinary least squares estimates of the effects of both the continuous years of competitive elections and average newspaper circulation indicate large effects that are robust

to controls either for initial financial sector development or initial income, both of which are highly correlated with these two political variables. A one standard deviation increase in the initial number of continuous years of competitive elections is associated with an increase in the rate of growth of the financial sector of 0.6 percentage points per year and with an increase in the size of the financial sector in 2000 of as much as 25 percent of GDP. Results for newspaper circulation are still larger.

Table 2b: Two-stage least squares estimates of Table 2a

	Continuous years of competitive elections (1975)			Average Newspaper Circulation (1975-2000)		
Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00 (*IV*)	Level 2000 (*IV*)	Level 2000 (*IV*)	Growth 75 – 00 (*IV*)	Level 2000 (*IV*)	Level 2000 (*IV*)
Political variable	.002 (*.004*)	.02 (*.006*)	.03 (*0.0*)	.0003 (*.002*)	.002 (*.007*)	.002 (*0.0*)
Land (thousands of square miles)	-.00005 (*.03*)	-.00038 (*.15*)	-.0004 (*.13*)	-.00001 (*.48*)	.0002 (*.34*)	.0002 (*.29*)
Average population (millions)	-.00001 (*.96*)	-.0025 (*.63*)	-.0025 (*.61*)	-.02 (*.20*)	.004 (*.17*)	.005 (*.09*)
Log real income/capita (1975)		.01 (*.91*)			-.008 (*.93*)	
Private sector lending (1975)	-.06 (*..04*)			-.12 (*.004*)		
F-statistic on instruments (first stage)	6.2	4.2	4.7	7.3	4.5	12.5
Hansen *J*-statistic (Chi-squared *p*-value)	.04	.02	.09	.05	.04	.05
N	66	71	79	78	92	104

N.B. *p*-values are reported in parentheses, based on robust standard errors. Instruments for the fourth and eighth regressions are three dummy variables indicating whether a country has British, French or Spanish colonial origins. Constants not reported.

Table 2b investigates the sensitivity of these results to the potential endogeneity of the political variables to financial sector development. Although the political variables remain highly significant, this exercise is less successful than in Table 1b. All of the usual instruments, including the colonial heritage dummies reported here, are significant predictors of the political variables. However, the Hansen *J*-test rejects the assumption that they can be excluded from the second stage regressions.

The results in Tables 2a and 2b underline the importance of a different kind of credibility for financial sector development. When average citizens do not believe the promises of political competitors to provide such public goods as secure property rights or are unable to monitor the fulfillment of such promises, financial sector development slows. Once again, however, one might argue that these two variables, meant to capture the dynamics of political competition, may instead reflect the influence of the excluded institutional variables, political checks and balances and elections.

To examine whether this is the case, the regressions reported in Table 2c replicate those in Table 2a, controlling in addition for checks and balances. This variable, as the earlier discussion indicates, takes into account both the presence of competitive elections and the number of veto players in government. As the results in Table 2c indicate, there is little evidence that institutions drive the results in Table 2a. The magnitude of the effects of the political variables is little changed by the inclusion of checks and balances. In most cases the political variables are statistically significant and in all cases they are more significant than the checks and balances variable.

Another measure of the size of the financial sector is liquid liabilities as a fraction of GDP (currency plus demand and interest-bearing liabilities of bank and non-bank financial intermediaries). Liquid liabilities are an inferior measure of financial sector development

since they do not tell us the extent to which financial intermediaries actually channel funds to the private sector. When the regressions in Tables 1 and 2 are repeated, substituting growth in liquid liabilities 1975 – 2000 or the level of liquid liabilities in 2000 for the corresponding private sector credit variables used earlier, the political variables are generally not significant in the ordinary least squares regressions. However, the two-stage least squares results are at least as strong as when the private sector credit variable is used. This pattern of results is consistent with the notion that liquid liabilities are a noisy measure of the financial sector, making results overall more sensitive to the noisiness of the independent variables. Since instrumental variables reduce the noise in the potentially endogenous variable, results improve in the two-stage least squares estimates.

Table 2c: The effects of political credibility and voter information, controlling for political checks and balances

	Continuous years of competitive elections (1975)			Average Newspaper Circulation (1975-2000)		
Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)
Political variable	.0003 (*.13*)	.003 (*.31*)	.01 (*0.0*)	.00007 (*.04*)	.001 (*0.008*)	.002 (*0.0*)
Checks and Balances	.004 (*.20*)	-.035 (*.36*)	.06 (*.05*)	.003 (*.19*)	.04 (*.13*)	.05 (*.03*)
R^2	.10	.36	.32	.12	.43	.42
N	66	73	88	78	93	114

N.B. Table 2c uses the same specification as in Table 2a, with the addition of political checks and balances. *p*-values are reported in parentheses, based on robust standard errors. Constants and conditioning variables not reported.

Politics, Property Rights and Financial Sector Development

The arguments here echo the literature in claiming that the link from politics and political institutions to financial sector development passes through the security of property

rights. The difference here is that secure property rights are seen as a consequence both of the political checks and balances that enhance the credibility of government policies, as in the literature, but also of the willingness of governments to provide public goods. Regardless of the underlying dynamics of the link, however, the empirical links in this chain have not been explicitly estimated. Table 3 reports the estimates of equations 3 and 4 in the text above, a simple exercise that does just this.

The measure of property rights follows Keefer and Knack (1995) and is the sum of four variables from the *International Country Risk Guide* (Political Risk Services): the risk of expropriation, the enforceability of contracts with government, corruption and bureaucratic quality. The earliest value of this variable, 1984, is used here. It is well-known that the security of property rights is a significant determinant of financial sector development. This result is reflected, for the specifications and data used here, in the first and third columns in Table 3. These estimations are based on columns 1 and 2 in Table 1a, with the initial value of the property rights variable substituted for the political variable.

Columns 2 and 4 in Table 3 are based on estimates of the system of equations 3 and 4. From equation 3, one extracts the predicted value of the security of property rights based on the particular political variable in the left-most column of Table 3. In all cases, including the case of competitive elections, the 1975 values of the political variables are significant determinants of the security of property rights in 1984. Equation 4 then estimates the effect of this predicted value of the property rights variable on financial sector development, which is the result reported in the cells of Table 3.

From Table 3, it is immediately clear that all of the political variables, with the exception of competitive elections themselves, have a significant influence on financial sector development that runs precisely through their effect on the security of property rights.

However, only the significance of the checks and balances variable reflects the usual logic in the literature: that political institutions influence the credibility of government policies by making them difficult to reverse. The significance of years of competitive elections and newspaper circulation indicate a second channel is also at work: that the security of property rights is also a public good, the provision of which is influenced by the conditions of political competition.

Table 3: Does the effect of politics on financial sector development go through the security of property rights?

Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00	Growth 75 – 00	Level 2000	Level 2000
Security of Property Rights (1984)	.0009 (*.06*)		.12 (*.001*)	
The component of property rights predicted by:				
Competitive Elections (1975)		.001 (*.29*)		.009 (*0.64*)
Checks and Balances (1975)		.002 (*.01*)		.018 (*.07*)
Continuous Years of Competitive Elections (1975)		.002 (*.004*)		.018 (*.08*)
Newspaper Circulation (average 1975-2000)		.002 (*0.01*)		.036 (*0.0*)

N.B. Columns 1 and 3 use the specifications of columns 1 and 2 in Table 1a, substituting the property rights measure for the political variables in Table 1a. Columns 2 and 4 report the results from estimating equation (4) in the main text, using the predicted value of the security of property rights from equation (3) in the main text. The specification of the system of equations 3 and 4 is based on columns 1 and 2 in Table 1a, respectively. The table presents the coefficient estimates for the respective political or property rights variables from 15 different regressions. Correspondingly, no constants or conditioning variables are reported. The *p*-values are reported in parentheses, based on robust standard errors.

Legal Origin, Politics and Financial Sector Development

The role of legal origin is ignored in the foregoing estimations. Implicitly, though, the role of politics in financial sector development is present in many of the arguments regarding the influence of legal institutions. Some scholars argue that legal traditions are the direct product of political forces (La Porta, et al. 1998, Glaeser and Shleifer 2000xxupdate), for example emerging from the different choices rulers made to control bureaucratic malfeasance or recalcitrant barons. At the same time, modern studies of judicial performance in the United States and elsewhere (e.g., Gely and Spiller, XXCITE), demonstrate unambiguously the dependence of judicial decision making on the preferences of political decision makers, just as other literature has demonstrated the influence of politics on other government institutions, even when they enjoyed *de jure* independence from politicians (e.g., on central banks, Keefer and Stasavage 2003). Those same political forces might be expected to influence political institutions and the dynamics of political competition over the periods under consideration here.

In fact, there is a significant relationship between legal origin variables and each of the political variables under consideration here. An easy way to see this is to group together those legal origins regarded in the literature as being more conducive to the protection of private property rights, the English, German and Scandinavian. A variable that takes a value of one if a country has English, German or Scandinavian legal origins and a zero otherwise is a significant determinant of the political variables here, controlling for the logarithm of per capita income in 1975. This certainly does not suggest that legal origin determines political systems, but rather that historical forces may determine both.

Evidence presented in Beck, et al. (2001) indicates that legal origins are the predominant determinant of financial sector development and that political variables have

little impact, whether or not one controls for legal origins. The variables they use to test their political hypotheses are subjective indicators from the Polity IV database. The results presented earlier already indicate that political measures different than the ones they employ are highly significant determinants of financial sector development. There remains the question, therefore, of whether these political results survive the introduction of controls for legal origin.

Given the potential political roots of legal institutions, it is not obvious that one should examine the robustness of tests of political hypotheses of financial sector development with respect to controls for legal origin. Political variables may be insignificant in the presence of legal origin variables simply because the latter embed political circumstances that more directly capture political incentives towards the financial sector than the political variables themselves. With this caveat in mind, however, we can nevertheless ask whether the direct political measures used here are "robust" to the presence of legal origin controls.

As in Beck, et al. (2001), legal origin dummies are simply added to the base specifications – in this case, to the specifications in Tables 1a and 1b, and 2a and 2b. Here, in a slight variation on their approach, the Scandinavian legal dummy is substituted for the French. This allows all of the legal traditions that are thought to be most conducive to financial sector development, the British, French and German traditions, to be compared to those that are thought to be less conducive.

Results in the first three columns of Table 4 verify that the effects of legal origin variables in the particular specifications used here are similar to those found by Beck, et al. (2001). The last three columns of Table 4 present results substituting Scandinavian for French legal origin, confirming that Scandinavian legal origin is (somewhat) better than

French for financial sector development, approximately the same as British and that German is potentially several times more conducive than British legal origin to financial sector development.

Table 4: Legal origin and financial sector development

Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)
British legal origin	.008 (*.43*)	.23 (*.12*)	.24 (*.03*)	.02 (*.06*)	.21 (*.02*)	.26 (*.003*)
German legal origin	.017 (*.113*)	.64 (*.001*)	.90 (*0.00*)	.03 (*.02*)	.62 (*0.00*)	.93 (*0.00*)
French legal origin	-.01 (*.31*)	.04 (*.76*)	.002 (*.98*)			
Scandinavian legal origin				.01 (*.31*)	.10 (*.35*)	.48 (*0.0*)
R^2	.09	.46	.26	.09	.47	.31
N	78	94	117	78	94	117

N.B. Specifications are as in the first three columns of Table 1a, substituting the legal origin for the political variables. *p*-values are reported in parentheses, based on robust standard errors. Constants and other conditioning variables not reported.

Tables 5 and 6 replicate the regressions in Tables 1a, 1b, 2a and 2b, with the addition of the legal origin controls. Following these earlier tables, Tables 5a and 6a present the results of ordinary least squares regressions and Tables 5b and 6b the instrumental variable estimates, using colonial heritage variables as instruments.

From Tables 5a and 6a, it is clear that controls for legal origin reduce somewhat the estimated effects of some political variables. However, in contrast to the results found elsewhere in the literature using different political variables, the political hypotheses considered here are not rejected in ten of 12 specifications even when controlling for legal origin and even recognizing that legal origin may itself capture political effects. The

specification does not drive these results since in these same tables, the pattern of results of the legal origin variables is similar to that found in Beck, et al. (2001): German legal origin is significantly better for financial sector development than all other legal traditions, while British legal origin is frequently significant but of much lower magnitude.

Two-stage least square results, using the colonial heritage variables as instruments, are reported in Tables 5b and 6b. Results from the first stage regressions confirm the close relationship between legal origin and political variables. Scandinavian and German legal origins are significantly associated with competitive elections and newspaper circulation; Scandinavian legal origin predicts continuous years of competitive elections in 1975; none of the legal origin variables is significantly associated with political checks and balances.

Table 5a: Competitive elections, checks and balances and lending to the private sector

	Competitive Elections (1975)			Checks and Balances (1975)		
Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)
Political variable	.001 (*.55*)	-.006 (*.79*)	.04 (*.01*)	.005 (*.04*)	.03 (*.26*)	.08 (*0.001*)
British legal origin	0.017 (*.08*)	.18 (*.04*)	.18 (*.025*)	.015 (*.10*)	.15 (*.08*)	.18 (*.03*)
Scandinavian legal origin	.007 (*.53*)	.13 (*.25*)	.35 (*0.00*)	.005 (*.56*)	.12 (*.25*)	.36 (*0.00*)
German legal origin	.026 (*.04*)	.65 (*0.00*)	.81 (*0.00*)	.025 (*.05*)	.63 (*0.00*)	.78 (*0.00*)
R^2	.09	.47	.36	.12	.48	.40
N	78	93	116	78	93	116

N.B. *p*-values are reported in parentheses, based on robust standard errors. Constants not reported. Specifications based on Table 1a, with the addition of legal origin variables.

Table 5b: Two stage least squares estimates of Table 5a

First stage regressions

	Competitive Elections (1975)			Checks and Balances (1975)		
Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00 (*IV*)	Level 2000 (*IV*) , with GDP/capita	Level 2000 (*IV*), no GDP/capita	Growth 75 – 00 (*IV*)	Level 2000 (*IV*) , with GDP/capita	Level 2000 (*IV*), no GDP/capita
British legal origin	.14 (*.86*)	.67 (*.44*)	.96 (*.20*)	-.03 (*.96*)	.34 (*.56*)	.28 (*.50*)
Scandinavian legal origin	2.5 (*.002*)	2.0 (*.003*)	3.30 (*0.00*)	.19 (*.82*)	-.34 (*.64*)	-.96 (*.11*)
German legal origin	1.35 (*.22*)	1.93 (*.007*)	3.14 (*0.00*)	-.17 (*.85*)	.08 (*.91*)	1.42 (*.02*)
British colonial heritage	.72 (*.42*)	1.02 (*.28*)	.38 (*.63*)	-.31 (*.63*)	-.10 (*.88*)	-.17 (*.74*)
French colonial heritage	-1.54 (*.046*)	-.30 (*.52*)	-1.39 (*.008*)	-1.6 (*.02*)	-.66 (*.13*)	-1.28 (*.008*)
Spanish colonial heritage	.82 (*.40*)	1.07 (*.11*)	.95 (*.19*)	-1.07 (*.14*)	-.90 (*.08*)	-.80 (*.12*)
F-statistic on instruments	6.32	2.18	8.25	3.91	1.35	4.63

Second stage regressions

	Competitive Elections (1975)			Checks and Balances (1975)		
Political variable	.014 (*0.03*)	.001 (*.86*)	.11 (*0.009*)	.036 (*.018*)	.22 (*.13*)	.27 (*0.005*)
British legal origin	.008 (*.56*)	.15 (*.22*)	.06 (*.62*)	-.002 (*.93*)	-.01 (*.93*)	.018 (*.90*)
Scandinavian legal origin	-.02 (*.26*)	.09 (*.51*)	.08 (*.70*)	-.025 (*.34*)	.09 (*.42*)	.019 (*.93*)
German legal origin	.009 (*.67*)	.62 (*.001*)	.55 (*.006*)	.01 (*.68*)	.53 (*.01*)	.36 (*.21*)
Hansen *J*-statistic (Chi-squared *p*-value)	.04	.04	.08	.58	.48	.71
N	78	91	103	78	91	103

N.B. *p*-values are reported in parentheses, based on robust standard errors. Instruments for the fourth and eighth regressions are three dummy variables indicating whether a country has British, French or Spanish colonial origins. Constants and conditioning variables not reported. Specifications, with the addition of the three legal origin variables, are as in Table 1.

The more interesting finding is in the second stage regressions. Among the 12 regressions, in only five is even one of the three legal origin variables significant and in none is more than one significant; in general, they are highly insignificant. In eight of the twelve regressions, the political variables are significant. In all cases, their estimated magnitudes are only slightly lower relative to the large magnitudes reported in Tables 1b and 2b. Moreover, in all of these cases, the *J*-statistic supports the validity of the instruments.

Table 6a: Continuous years of elections, newspaper circulation and lending to the private sector

	Continuous years of competitive elections (1975)			Average Newspaper Circulation (1975-2000)		
Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)	Growth 75 – 00 (*OLS*)	Level 2000 (*OLS*)	Level 2000 (*OLS*)
Political variable	.0006 (*.009*)	.003 (*.32*)	.011 (*0.00*)	.0001 (*0.00*)	.001 (*0.00*)	.002 (*0.00*)
British legal origin	0.014 (*.18*)	.22 (*.05*)	.15 (*.15*)	.014 (*.10*)	.16 (*.05*)	.18 (*.01*)
Scandinavian legal origin	-.01 (*.42*)	-.016 (*.91*)	-.0004 (*0.998*)	-.04 (*.03*)	-.28 (*.08*)	-.21 (*0.18*)
German legal origin	.02 (*.16*)	.62 (*0.001*)	.75 (*0.00*)	-.006 (*.67*)	.34 (*0.09*)	.37 (*0.02*)
R^2	.14	.50	.45	.21	.52	.51
N	66	73	88	78	94	115

N.B. *p*-values are reported in parentheses, based on robust standard errors. Constants not reported. Specifications based on Table 1a, with the addition of legal origin variables.

From the evidence in Tables 5 and 6 one can conclude that, at a minimum, the effects of political checks and balances, political credibility (continuous years of competitive elections) and voter information (newspaper circulation) are significant determinants of financial sector development even controlling for legal origin. The effect of competitive elections is more fragile, but this was already established in the earlier regressions.

The two-stage least squares results in Tables 5b and 6b also suggest that historical forces associated with colonial heritage drive both subsequent political development and the evolution of legal institutions. Once this exogenous component of the political characteristics of countries is isolated the explanatory power of legal origin diminishes. Legal origins are clearly a good proxy for these historical conditions, but the significance of the proxies diminishes once the political channels are modeled more explicitly. Such a claim requires more investigation, however, particularly since colonial heritage is itself a black box when it comes to understanding these historical conditions.

It is, finally, instructive to ask why the political results here stand in such stark contrast to those in Beck, et al. (2001). The answer is likely two-fold. First, the subjective measures of political phenomena that they use may overweight the presence of competitive elections. As the evidence here suggests, among all political determinants, competitive elections by themselves form a weaker basis for financial sector development.

Second, although they are careful to test the role played by special interests both in theory and in their empirical work, the variables used here may be more apt for the task. Unlike the variables used here to capture special interest influence, theirs is never significant. The likely reason for this is simply that their proxy is noisier than the variables used here.

They use the variable *special* from the *Database of Political Institutions* (DPI), which records whether parties in government are committed to a nationalist, rural, regional or religious agenda. Despite the variable label, its best use is likely as a measure of the ideological orientation of governments rather of government willingness to reward narrow interests in society. This is the case with the nationalist and religious categories, for example, which are not traditional dimensions by which one evaluates the extent to which narrow groups in society seek economic benefits from government at the expense of society at large.

Table 6b: Two stage least squares estimates of Table 1a

First stage regressions

	Continuous years of competitive elections (1975)			Average Newspaper Circulation (1975-2000)		
Lending to the private sector by banks and non-bank financial institutions	Growth 75 – 00 (*IV*)	Level 2000 (*IV*) , with GDP/capita	Level 2000 (*IV*), no GDP/capita	Growth 75 – 00 (*IV*)	Level 2000 (*IV*) , with GDP/capita	Level 2000 (*IV*), no GDP/capita
British legal origin	3.6 (*.60*)	5.65 (*.07*)	5.03 (*.40*)	-4.39 (*.92*)	52.47 (*.39*)	41.90 (*.46*)
Scandinavian legal origin	24.2 (*.006*)	22.56 (*.002*)	33.58 (*0.00*)	331.91 (*0.00*)	292.44 (*0.00*)	336.92 (*0.00*)
German legal origin	-1.23 (*.91*)	.33 (*.97*)	10.81 (*.24*)	216.77 (*0.00*)	211.61 (*.001*)	264.96 (*0.00*)
British colonial heritage	-5.51 (*.54*)	5.27 (*.17*)	1.47 (*.22*)	-10.73 (*.83*)	-45.24 (*.48*)	-59.2 (*.33*)
French colonial heritage	-16.55 (*.055*)	-4.52 (*.33*)	-8.39 (*.07*)	-103.91 (*.002*)	-42.21 (*.06*)	-122.61 (*0.00*)
Spanish colonial heritage	-14.73 (*.09*)	-4.52 (*.33*)	-7.0 (*.14*)	-33.68 (*.33*)	-44.85 (*.13*)	-57.30 (*.08*)
F-statistic on instruments	1.88	3.9	1.91	8.66	1.43	14.01

Second stage regressions

	Continuous years of competitive elections (1975)			Average Newspaper Circulation (1975-2000)		
Political variable	.003 (*0.05*)	.02 (*.20*)	.04 (*0.016*)	.0006 (*0.00*)	.003 (*.20*)	.003 (*0.00*)
British legal origin	-.009 (*.68*)	.05 (*.79*)	-.16 (*.51*)	-.003 (*.84*)	-.05 (*.69*)	.099 (*.15*)
Scandinavian legal origin	-.09 (*.11*)	-.41 (*.32*)	-1.07 (*.11*)	-.21 (*.002*)	-.98 (*.26*)	-.70 (*.05*)
German legal origin	.008 (*.79*)	.58 (*.003*)	.32 (*.41*)	.12 (*.03*)	.19 (*.79*)	-.03 (*.94*)
Hansen *J*-statistic (Chi-squared *p*-value)	.07	.02	.17	.83	.41	.55
N	66	71	79	78	92	104

N.B. *p*-values are reported in parentheses, based on robust standard errors. Instruments for the fourth and eighth regressions are three dummy variables indicating whether a country has British, French or Spanish colonial origins. Specifications are as in Table 2, with the addition of the three legal origin variables. Constants and other conditioning coefficients not reported.

At the same time, the willingness of politicians to trade money from special interests for favors, or their desire to target specific groups for social benefits at the expense of society more broadly, may not be captured at all by this variable. Governments could be entirely driven by clientelist or patronage motives and be indifferent to religious or regional interests. At the same time, governments recorded as religious in the DPI, such as the Christian Democratic Party of Germany, are surely more driven to provide public goods than the major political parties of Bangladesh, which are not recorded as exhibiting any of these four biases. In contrast, the variables used here, particularly the continuing years of competitive elections and newspaper circulation, are linked in the literature to all government actions that favor narrow interests at the expense of broad social interests.

Conclusion

Three conclusions emerge from this paper. First, consistent with much of the literature, political checks and balances are important to the development of the financial sector. This paper is the first to show this systematically with objective data, and more importantly, to demonstrate explicitly that the effect of checks and balances passes through the security of property rights. Second, financial sector development depends on the willingness of governments to provide public goods, ranging from hospitable regulation to secure property rights. Given that, we would expect political characteristics of countries that affect government incentives to provide public goods to be significant determinants of financial sector development. Strong evidence is found for this: the continuous years of competitive elections and newspaper circulation, proxies for the credibility of pre-electoral political promises and voter information, are both significant determinants of financial sector development.

Finally, this paper has revisited the debate about politics, legal origins and finance. In contrast to earlier work, political variables are robust to controls for legal origins. Moreover, evidence is uncovered here that suggests that legal origins are likely to proxy for underlying historical and political factors that reflect the willingness of governments to favor broad over narrow interests in society. When this willingness is directly modeled, and one controls for the potential endogeneity of political effects, legal origin variables are no longer significant determinants of financial sector development.

These findings, particularly regarding legal origin, are certainly only indicative. Further work is needed to understand why legal origins might proxy for historical conditions that influence both the political evolution of countries as well as the legal choices that countries make. Similarly, although colonial heritage allows us to identify the effects of political variables on financial sector development, they are not particularly revealing of the process by which historical factors influence current political institutions and conditions of political competition.

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